

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:  
Birkestrand et al.

Serial No.: 10/650,541

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Filed: August 28, 2003

Group Art Unit: 2132

Examiner: Benjamin E. Lanier

For: CAPACITY ON DEMAND GRACE PERIOD FOR INCOMPLIANT SYSTEM  
CONFIGURATIONS

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/Mayra Bravo/  
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**APPEAL BRIEF**

Applicants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2132 dated February 19, 2008, finally rejecting claims 28-51. The final rejection of claims 28-51 is appealed. This Appeal Brief is believed to be timely since it is transmitted by the due date of August 16, 2008, as set by the filing of a Notice of Appeal on June 16, 2008.

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### **Real Party in Interest**

The present application has been assigned to International Business Machines Corporation, Armonk, New York.

### **Related Appeals and Interferences**

Applicant asserts that no other appeals or interferences are known to the Applicant, the Applicant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **Status of Claims**

Claims 28-51 are pending in the application. Claims 1-43 were originally presented in the application. Claims 44-51 have been added during prosecution. Claims 1-27 have been canceled without prejudice. Claims 28-51 stand finally rejected as discussed below. The final rejections of claims 28-51 are appealed. The pending claims are shown in the attached Claims Appendix.

### **Status of Amendments**

All claim amendments have been entered by the Examiner, including amendments to the claims proposed after the final rejection.

## Summary of Claimed Subject Matter

### A. CLAIM 28 – INDEPENDENT

In the embodiments of independent claim 28, a computer readable storage medium containing a program which, when executed, performs an operation for providing access to an on-demand resource 128 on a computerized apparatus 104 is provided. *See Application*, para. [0031], Figure 1. The operation of the program comprises recording a compliant state 132 of the computerized apparatus, with respect to the on-demand resource 128 (*See Application*, para. [0038], [0040]:1-2, Figure 1), in which a system function 134 uses the on-demand resource 128 with authorization (*See Application*, para. [0036]:1-4, [0037]:1-3, Figure 1), wherein on-demand resource 128 is a hardware component of the computerized apparatus 104 (*See Application*, para. [0039], Figure 1), determining an in compliant state 132 of the computerized apparatus 128, with respect to the on-demand resource 128 (*See Application*, para. [0041]:5-11, 16-19, [0037]:1-3, Figure 1), in which the system function 134 uses the on-demand resource 128 without authorization (*See Application*, para. [0041]:4-11, 16-19, [0037]:1-3, Figure 1), and initiating a grace period 128 during which the system function 134 continues to use the on-demand resource 128 while in the in compliant state 132 (*See Application*, para. [0040]:5-8, [0041]:16-19, Figure 1, Figure 3), wherein the computerized apparatus 104 transitions from the compliant state 132 to the in compliant state 132 and then initiates the grace period 128 in a manner providing continuous availability of the on-demand resource 128 to the system function 134 (*See Application*, para. [0040]:5-9, [0041]:16-19, Figure 1, Figure 3).

### B. CLAIM 36 - INDEPENDENT

In the embodiments of independent claim 36, a computerized apparatus 104 is provided. *See Application*, Figure 1. The computerized apparatus 104 comprises on-demand resources 128 configured to be claimed for use by a function 134 (*See Application*, para. [0031], [0037]:1-3, 8-10, Figure 1), wherein on-demand resources 128

comprise a hardware component *See Application*, para. [0039], Figure 1), and a capacity manager 120. *See Application*, Figure 1. The capacity manager 120, when executed by a processor, is configured to enable the on-demand resources 128 for use by the function 134 (*See Application*, [0034]:3-10), [0036]:1-4, [0037]:1-3), wherein the computerized apparatus 104 is in a compliant state 132 when the function 134 only claims usage of the enabled on-demand resources 128 and does not claim any disabled on-demand resources 128 (*See Application*, para. [0031]:1-2, [0036], [0037]:1-3, Figure 1), and initiate a grace period 138 during which the function 134 may continue to use the on-demand resources 128 while in an in compliant state 132 for a defined period of time (*See Application*, para. [0040]:5-8, [0041]:16-19, Figure 1, Figure 3), wherein the computerized apparatus 104 is in the in compliant state 132 when the function 134 claims usage of the disabled on-demand resources 128 (*See Application*, para. [0040]:5-8, [0041]:16-19, Figure 1, Figure 3), and wherein the grace period 138 is initiated in response to the computerized apparatus 104 transitioning from the compliant state 132 to the in compliant state 132, thereby providing continuous availability of the on-demand resources 128 to the function (*See Application*, para. [0040]:5-8, [0041]:16-19, Figure 1, Figure 3).

#### C. CLAIM 44 - INDEPENDENT

In the embodiments of independent claim 44, a computer-implemented method of providing access to an on-demand resource 128 on a computerized apparatus 104 is provided. *See Application*, Figure 1. The method comprises recording a compliant state 132 of the computerized apparatus 104, with respect to the on-demand resource 128 (*See Application*, para. [0038], [0040]:1-2, Figure 1), in which a system function 134 uses the on-demand resource 128 with authorization (*See Application*, para. [0036]:1-4, [0037]:1-3, Figure 1), wherein on-demand resource 128 is a hardware component of the computerized apparatus 104 (*See Application*, para. [0039], Figure 1), determining an in compliant state 132 of the computerized apparatus 104, with respect to the on-demand resource 128 (*See Application*, para. [0041]:5-11, 16-19, [0037]:1-3, Figure 1), in which the system function 134 uses the on-demand resource 128 without

authorization (*See Application*, para. [0041]:4-11, 16-19, [0037]:1-3, Figure 1), and initiating a grace period 138 during which the system function 134 may continue to use the on-demand resource 128 while in the in compliant state 132 (*See Application*, para. [0040]:5-8, [0041]:16-19, Figure 1, Figure 3), wherein the computerized apparatus 104 transitions from the compliance state 132 to the in compliant state 132 and then initiates the grace period 138 in a manner providing continuous availability of the on-demand resource 128 to the system function 134 (*See Application*, para. [0040]:5-9, [0041]:16-19, Figure 1, Figure 3).

### **Grounds of Rejection to be Reviewed on Appeal**

1. Rejection of claim 28 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Rejection of claims 28-51 under 35 U.S.C. § 102(e) as being anticipated by *Circenis et al.*, U.S. Pat. No. 7,146,496 (hereinafter *Circenis*).

## **ARGUMENTS**

**1. Rejection of claim 28 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention**

In the *Final Office Action* dated February 19, 2008 (hereinafter, "*Final Office Action*"), the Examiner argues that claim 28 recites the limitation "the compliance state" in line 13, and therefore is insufficient antecedent basis for this limitation in the claim. See *Final Office Action*, pg. 2.

Applicants submit that claim 28 has been amended to recite "the compliant state" instead of "the compliance state"

The amendment was made in the *Response to Final Office Action* dated February 19, 2008. In the *Advisory Action* dated May 15, 2008 (hereinafter, "*Advisory Action*"), the Examiner indicated that the amendment was entered for purposes of appeal. Therefore, for the reasons provided above, Applicants respectfully request the rejection of claim 28 be reversed and the claim be allowed.

**2. Rejection of claims 28-51 under 35 U.S.C. § 102(e) as being anticipated by *Circenis*.**

*The Applicable Law*

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

*Regarding claims 28, 36 and 44*

Regarding claim 28, in the *Final Office Action*, the Examiner, in rejecting the claims, cites to *Circenis* as teaching element “recording a compliant state of the computerized apparatus, with respect to the on-demand resource, in which a system function uses the on-demand resource with authorization, and determining an in compliant state of the computerized apparatus, with respect to the on-demand resource, in which the system function uses the on-demand resources without authorization. Claims 36 and 44 recite similar claim limitations.

*Circenis* discloses two types of components. The first type of component is considered to be allowable under an acquired right, or in other words, components that “a user has already paid for and/or is entitled to use as a matter of right.” See *Circenis*, Col. 5, Lines 61-64. The second type of component is the ICOD (Instant Capacity on Demand) components, which “are components that the user has not paid for and/or is not entitled to use as a matter of right.” See *Circenis*, Col. 5, Lines 64-66. These components can be activated temporarily if the user obtains some temporary right, such as by maintaining a temporary capacity balance. See *Circenis*, Col. 5, Lines 66-67 – Col. 6, Lines 1-3.

In this case, “a user interacts with software in the computer system, e.g., [an] ICOD software agent in the ICOD computer system, to request the activation of a set of previously inactive components.” See *Circenis*, Col. 9, Lines 49-52. Subsequently, “the software . . . ascertains whether the number of active components that results from the activation request would exceed the number of active components allowable under the acquired right.” See *Circenis*, Col. 9, Lines 57-60. If it is determined that “the activation of the set of previously inactive components would not bring the computer system out of compliance under the acquired right, there is no need to employ temporary capacity[,] and activation is allowed. See *Circenis*, Col. 9, Line 67 – Col. 10, Lines 1-3.

On the other hand, if it is determined that “the number of inactive components that would result from the activation request is less than the number of inactive components expected to be present and inactive in the computer system to comply with the acquired right, a further check is made . . . to ascertain whether there is adequate temporary capacity available to support the activation request.” See *Circenis*, Col. 10, Lines 5-11. If enough temporary capacity is available “to support the activation of the

components in the activation request[,] the temporary capacity balance is adjusted accordingly.” See *Circenis*, Col. 10, Lines 51-55. That is, a “temporary capacity consumption rate is calculated, and the temporary capacity is account is debited.” See *Circenis*, Col. 6, Lines 43-45.

Once “the temporary capacity balance drops below a certain threshold, the ICOD software agent may request that the user purchase additional temporary capacity or that the user acquire additional components under an acquired right basis.” See *Circenis*, Col. 7, Lines 3-7. Furthermore, “the ICOD software agent may reconfigure the ICOD system so that the ICOD components are deactivated immediately[,]” or deactivate the components upon reboot. See *Circenis*, Col. 7, Lines 7-12. Therefore, the temporary capacity balance simply represents the amount of time available to use an ICOD component.

It is also important to note that the compliance of the system disclosed in *Circenis* is determinative of whether or not additional components are being used other than those under the acquired right. That is, a system is found to be compliant if only those components under the acquired right are utilized, and is found to be non-compliant if additional components not allowable under the acquired right (*i.e.*, the ICOD (Instant Capacity on Demand) components) are utilized. Support for this can be found in the following portions of *Circenis*:

To ensure compliance, vendors in the past employ an ICOD software agent, e.g., codes in the ICOD system, to periodically take inventory of the inactive (or active) components and compare the number of inactive (or active) components[.] If a user's computer system uses more active components therein than the number of active components allowed under license [or the acquired right], the users' system is deemed to be in a non-compliant state. See *Circenis*, Col. 1, Lines 43-64.

...

If the number of active CPU's [or components] exceeds the number of CPU's allowable under the acquired right, ICOD software agent will note that the system is out of compliance in accordance with the acquired right and begins to debit temporary capacity balance if there is temporary capacity available. See *Circenis*, Col. 7, Lines 37-43.

In contrast, the present claims recite that a computerized apparatus is in a compliant state if a system function uses the on-demand resource with authorization,

and is in a non-compliant state if the system function uses the on-demand resources without authorization. Therefore, the compliance of the system is dependent on whether or not the on-demand resources are being utilized with or without authorization, whereas *Circenis* discloses that the compliance of the system is dependent on whether or not the on-demand resources are being used (regardless of whether the on-demand resources are being used with or without authorization). As a result, *Circenis* does not disclose recording a compliant state of the computerized apparatus, with respect to the on-demand resource, in which a system function uses the on-demand resource with authorization, and determining an in compliant state of the computerized apparatus, with respect to the on-demand resource, in which the system function uses the on-demand resource without authorization.

In the *Advisory Action*, the Examiner contends that *Circenis* teaches the use of on-demand resources without authorization. Specifically, the Examiner states that *Circenis* discloses that "the compliance of the on-demand components of *Circenis* depends on whether or not use of those components has been paid for." See *Advisory Action*, pg. 2. The Examiner further states "having paid for the right to use the component renders a compliant state, wherein use without payment renders an in compliant state." The Examiner cites to Col. 5, lines 64-Col. 6, line 3 and Col. 9, lines 17-31 to support his assertion.

However, Applicants submit that the cited portions of *Circenis* do not support the Examiner's assertion. Col. 5, lines 64-Col. 6 discloses the following:

ICOD components are components that the user has not paid for and/or is not entitled to use as a matter of right. ICODE components can be activated temporarily if the user obtains some temporary right or provisional license thereto, such as by maintaining a temporary capacity balance or by obtaining a pending right. See *Circenis*, Col. 5, lines 64-Col. 6.

The temporary right disclosed in the above cited portion may be purchased with the vendor. See *Circenis*, col. 1, lines 65-66. "In general, if the user maintains an adequate temporary capacity amount with the vendor, the user can activate ICODE components temporarily and have the temporary capacity balance deducted for the ICODE component usage." See *Circenis*, col. 1, lines 66 – col. 2, lines 1-3. Accordingly, the

cited section is directed towards obtaining a right to use the on-demand resources with authorization with the vendor through purchasing temporary rights.

Col. 9, lines 17-31 discloses:

For other users, the temporary capacity balance may not expire until it reaches a predefined value, such as a negative value. For example, some users may be deemed sufficiently trustworthy that the vendor may be willing to allow such users to incur a negative temporary capacity balance. Thus for such a user, the amount of temporary capacity available is the difference between the current value of the temporary capacity balance variable and the predefined threshold. For example, if the predefined threshold is -20 and the current temporarily capacity balance has a value of 40, that user has 60 units of temporary capacity available for use before his ability to debit the temporary capacity account expires. Thus, if such a user has a temporary capacity balance of -10 units, that user may still activate an additional ICOD component, at least until the temporary capacity balance reaches -20 or below. *See Circenis*, col. 9, lines 17-31.

Applicants submit that the cited portion is simply directed to effectively increasing the temporarily capacity balance for a user that is deemed trustworthy. In doing so, the vendor extends the time period for when a user can activate ICOD components. In other words, a vendor is providing authorization for a user to access these components for the extended period. Therefore, Applicants submit that *Circenis* does not disclose the use of on-demand resources without authorization.

Furthermore, *Circenis* fails to disclose initiating a grace period during which the system function continues to use the on-demand resource while in the in-compliant state, wherein the computerized apparatus transitions from the compliance state to the in-compliant state and then initiates the grace period in a manner providing continuous availability of the on-demand resource to the system function, as further disclosed in claims 28, 36, and 44. In the *Final Office Action*, the Examiner states that this element is disclosed in Col. 6 lines 66 – Col. 6, line 3 of *Circenis*. *See Final Office Action*, pg. 3.

However, this cited portion is simply directed towards the temporary capacity balance used to access ICOD components. As stated earlier, the temporary capacity balance simply indicates the amount of time available for accessing an ICOD component. Furthermore, as stated above, the on-demand resources (ICOD components) are only utilized in a non-compliant state, whereas the present claims

disclose that the on-demand resources can be used in a compliant state and a non-compliant state. Therefore, *Circenis* does not and can not disclose a grace period during which a system function continues to use the on-demand resource while in the in-compliant state, wherein the computerized apparatus transitions from the compliance state to the in-compliant state and then initiates the grace period in a manner provided continuous availability of the on-demand resource to the system function.

Therefore, Applicants respectfully request the rejection of independent claims 28, 36, and 44, and the claims that depend therefrom, be reversed and the claims be allowed.

## CONCLUSION

The Examiner errs in finding that claims 28-51 are anticipated by *Circenis* under 35 U.S.C. § 102(e).

Withdrawal of the rejections and allowance of all claims is respectfully requested.

Respectfully submitted, and  
**S-signed pursuant to 37 CFR 1.4,**

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## CLAIMS APPENDIX

1-27. (Canceled)

28. (Previously Presented) A computer readable storage medium containing a program which, when executed, performs an operation for providing access to an on-demand resource on a computerized apparatus, the operation comprising:

recording a compliant state of the computerized apparatus, with respect to the on-demand resource, in which a system function uses the on-demand resource with authorization ,wherein on-demand resource is a hardware component of the computerized apparatus;

determining an in compliant state of the computerized apparatus, with respect to the on-demand resource, in which the system function uses the on-demand resource without authorization; and

initiating a grace period during which the system function continues to use the on-demand resource while in the in compliant state; wherein the computerized apparatus transitions from the compliant state to the in compliant state and then initiates the grace period in a manner providing continuous availability of the on-demand resource to the system function.

29. (Previously Presented) The computer readable storage medium of claim 28, wherein the system function is a partition manager.

30. (Previously Presented) The computer readable storage medium of claim 28, wherein initiating the grace period comprises initiating a countdown counter.

31. (Previously Presented) The computer readable storage medium of claim 28, further comprising preventing the system function from using the on-demand resource after expiration of the grace period.

32. (Previously Presented) The computer readable storage medium of claim 28, further comprising terminating the grace period if the system is returned to a compliant state.
33. (Previously Presented) The computer readable storage medium of claim 28, wherein recording the compliant state comprises writing to a smart chip.
34. (Previously Presented) The computer readable storage medium of claim 28, wherein determining the in compliant state comprises reading a smart chip.
35. (Previously Presented) The computer readable storage medium of claim 28, wherein the on-demand resource is one of a processor, memory and storage.
36. (Previously Presented) A computerized apparatus, comprising:  
on-demand resources configured to be claimed for use by a function, wherein on-demand resources comprise a hardware component; and  
a capacity manager, which when executed by a processor, is configured to:  
enable the on-demand resources for use by the function, wherein the computerized apparatus is in a compliant state when the function only claims usage of the enabled on-demand resources and does not claim any disabled on-demand resources; and  
initiate a grace period during which the function may continue to use the on-demand resources while in an in compliant state for a defined period of time, wherein the computerized apparatus is in the in compliant state when the function claims usage of the disabled on-demand resources, and wherein the grace period is initiated in response to the computerized apparatus transitioning from the compliant state to the in compliant state, thereby providing continuous availability of the on-demand resources to the function.
37. (Original) The computerized apparatus of claim 36, wherein the capacity manager is further configured to implement an enforcement policy restricting the use of the on-demand resources after expiration of the grace period.

38. (Original) The computerized apparatus of claim 36, wherein the function is a partition manager for managing a plurality of logical partitions.
39. (Original) The computerized apparatus of claim 36, further comprising a persistent storage device to store state information used to determine whether the computerized apparatus is in the compliant state or the noncompliant state with respect to the function's claim to usage of the on-demand resources.
40. (Original) The computerized apparatus of claim 36, wherein the on-demand resources comprise at least one of a processor, memory and storage.
41. (Original) The computerized apparatus of claim 36, wherein the capacity manager is configured to enable the on-demand resources by unlocking the on-demand resources and making the on-demand resources available for use upon request.
42. (Original) The computerized apparatus of claim 36, wherein the capacity manager is further configured to receive enablement codes configured to enable the on-demand resources.
43. (Original) The computerized apparatus of claim 42, wherein the capacity manager is configured to determine whether each enablement code is valid by
44. (Previously Presented) A computer-implemented method of providing access to an on-demand resource on a computerized apparatus, the method comprising:  
recording a compliant state of the computerized apparatus, with respect to the on-demand resource, in which a system function uses the on-demand resource with authorization, wherein on-demand resource is a hardware component of the computerized apparatus;

determining an in compliant state of the computerized apparatus, with respect to the on-demand resource, in which the system function uses the on-demand resource without authorization; and

initiating a grace period during which the system function may continue to use the on-demand resource while in the in compliant state; wherein the computerized apparatus transitions from the compliance state to the in compliant state and then initiates the grace period in a manner providing continuous availability of the on-demand resource to the system function.

45. (Previously Presented) The method of claim 44, wherein the system function is a partition manager.

46. (Previously Presented) The method of claim 44, wherein initiating the grace period comprises initiating a countdown counter.

47. (Previously Presented) The method of claim 44, further comprising preventing the system function from using the on-demand resource after expiration of the grace period.

48. (Previously Presented) The method of claim 44, further comprising terminating the grace period if the system is returned to a compliant state.

49. (Previously Presented) The method of claim 44, wherein recording the compliant state comprises writing to a smart chip.

50. (Previously Presented) The method of claim 44, wherein determining the in compliant state comprises reading a smart chip.

51. (Previously Presented) The method of claim 44, wherein the on-demand resource is one of a processor, memory and storage.

## EVIDENCE APPENDIX

None.

## **RELATED PROCEEDINGS APPENDIX**

None.